

THE LARVA OF *PLUSIA PUTNAMI GRACILIS*  
LEMPKE (LEP.: NOCTUIDAE)

By J. FENN\*

After two abortive attempts at rearing this species and several hours spent searching in vain for the larva locally where the moth appears annually in small numbers, I learned that 30 had been noted at Lopham Fen during one night in 1985. I decided that with such a density the fen would be crawling with larvae and accordingly, in the company of Mike Hall from nearby Scole, ventured onto the fen on the evening of 24th May 1986.

After an hour searching the ride edges the only larvae noted were hordes of *Philudoria potatoaria*, *Mythimna* species *straminea* and *pudorina* together with a few *impura*. Nothing remotely resembling a *Plusia*. Despondency began to set in. In desperation I decided to resort to a sweep net and almost unbelievably after the very first sweep a white-striped green larva lay curled in a ring in the bottom of the net. Closer scrutiny revealed only two pairs of prolegs — a *Plusia*! A further nine larvae were obtained over the next hour and it became apparent that they only appeared after areas containing abundant growths of a species of *Calamagrostis* were swept.

The following evening was extremely cool with a heavy dew and only 4 larvae were swept after two hours, including two almost fully grown. All the others had been in the penultimate instar, or smaller. We did, however, find one larva awaiting the final moult, halfway up a *Calamagrostis* stem; so conspicuous was it that we both spotted it simultaneously. Nine more larvae were swept on 6th June and I was delighted to find one in the act of feeding high up on a *Calamagrostis* blade.

The larva is grass green, tinged with yellowish between the segments and becoming noticeably darker above the spiracular stripe. The narrow dorsal line is darker green bordered with white from the rear of the thoracic to the beginning of the anal plate. The sub-dorsals are scarcely darker than the ground colour and also bordered with white, the lower line being the more conspicuous, and continuing through the thoracic plate to the end of the anal claspers. The upper white border-line is frequently incomplete.

The white spiracular stripe sometimes appears yellowish, but under high magnification (x30) is seen to be clear white tinged with green along the edges. Spiracles show up even whiter than the stripe containing them; a row of about twelve tiny black-emitting warts just above the spiracular stripe and more setae scattered spar-

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sely over the dorsal surface; there are more hair-bearing black warts on the wrinkled ventral surface.

Thoracic and anal plates are also green; head green, tinged slightly yellowish with, apart from the ocelli, a few tiny black warts and setae. True legs translucent green, brown tipped. Like *festucae* the larva is more elongate and smoother on the dorsal surface than other *Plusia* larva, tapering slightly fore and aft from the seventh segment. Length up to 37mm.

Judging by the description of the larva of *Plusia festucae* in Volume 10 of *Moths and Butterflies of Great Britain and Ireland*, the only differences seem to be the length of the fully grown larva (43mm in *festucae*) and the colour of the spiracles — pink in *festucae*, white in *gracilis*.

The cocoon is slightly off-white and elongate, somewhat resembling that of a burnet and usually spun on the underside of a grass blade.

The pupa is semi-gloss black with varying amounts of pale green on ventral surface. Where reduced to a minimum the green is confined to the apical areas of the wing sheaths and small patches on the first two abdominal segments. One pupa however, was predominately pale green with the black confined to a narrow strip along the dorsal surface.

Of eighteen larvae retained, nine produced adults between 20th June and 1st July, thereby confirming their identity. In captivity the larvae were not choosy feeders. Although provided with a constant supply of *Calamagrostis*, which seemed to be *C. canescens*, being much more slender than the common *C. epigejois*, they also ate *Dactylis*, *Bromus*, *Avena* and a tall *Poa* species. This may, of course, have contributed to the 50% failure rate!

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HIPPARCHIA SEMELE L. (GRAYLING BUTTERFLY) IN PERTHSHIRE. — According to Thompson (1980) *Butterflies of Scotland* p. 189 this species is extinct in Perthshire. It was with considerable surprise, therefore, that I discovered three specimens (two males and a female) whilst exploring the Braes of the Carse region to the east of Perth on July 18th, 1986. The specimens were flying along a grassy bank by a lane in what appeared, at first sight, to be an unlikely habitat for *semele*. I contacted Mr. M. Taylor of Perth Museum who in turn kindly contacted Mr. Thompson on my behalf about the record. Since the publication of his excellent book, Mr. Thompson has rediscovered *semele* in its' old locality of Kinnoull Hill which also lies to the east of Perth. I would ask any readers who may have found this species in Perthshire to forward their records to Mr. Taylor along with any other records they might consider of interest. M. D. BRYAN, Keeper of Natural History, Birmingham Museum.